

AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1. (Previously Presented) An inductively coupled antenna, comprising a coil having a plurality of turns including an outermost turn and a plurality of inner turns, wherein the outermost turn is connected in parallel with the plurality of inner turns and a sum of lengths of the plurality of inner turns is longer than a length of the outermost turn.
2. (Currently Amended) The inductively coupled antenna as claimed in claim 1, wherein the outermost turn and the plurality of inner turns are connected to the RF power supply at a branch point of the outermost turn and the plurality of inner turns in parallel and the plurality of inner turns are connected to each other in series.
3. (Cancelled)
4. (Original) The inductively coupled antenna as claimed in claim 1, wherein the plurality of turns is concentrically formed.
5. (Currently Amended) The inductively coupled antenna as claimed in claim 1, wherein the plurality of turns are partis formed of a single continuous conductive line.
6. (Cancelled)
7. (Cancelled)
8. (Currently Amended) The inductively coupled antenna as claimed in claim 21, ~~claim 6~~, wherein the conductive metal tube has a circular cross-section.

9. (Currently Amended) The inductively coupled antenna as claimed in claim 21, claim 6, wherein the conductive metal strip has a long[[tall]] and narrow rectangular cross-section.

10. (Currently Amended) The inductively coupled antenna as claimed in claim 21, claim 6, wherein the metal strip extends away from surface of an outer surface of the metal tube and a distance that height of the metal strip extends away from the outer surface of the metal tube gradually decreases from a center portion of the antenna to an end[[edge]] portion of the antenna.

11. (Previously Presented) An inductively coupled plasma (ICP) processing apparatus, comprising:

a reaction chamber maintained in a vacuum state;

an antenna installed on the reaction chamber to induce an electric field for ionizing a reactant gas injected into the reaction chamber and for generating plasma; and

a RF power source that is connected to the antenna to supply RF power,

wherein the antenna is formed of a coil having a plurality of turns, including an outermost turn and a plurality of inner turns, wherein the outermost turn is connected in parallel with the plurality of inner turns and wherein a sum of lengths of the plurality of inner turns is longer than a length of the outermost turn.

12. (Currently Amended) The ICP processing apparatus as claimed in claim 11, wherein the outermost turn and the plurality of inner turns are connected to the RF power supply at a branch point of the outermost turn and the plurality of inner turns in parallel and the plurality of inner turns are connected to each other in series.

13. (Cancelled)

14. (Currently Amended) The ICP processing apparatus as claimed in claim 11, wherein the plurality of turns are[[is]] concentrically formed.

15. (Currently Amended) The ICP processing apparatus as claimed in claim 11, wherein the plurality of turns are part of ~~is formed of~~ a single continuous conductive line.

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) The ICP processing apparatus as claimed in claim 22, ~~claim 16~~, wherein the conductive metal tube has a circular cross-section.

19. (Currently Amended) The ICP processing apparatus as claimed in claim 22, ~~claim 16~~, wherein the conductive metal strip has a long~~[[tall]]~~ and narrow rectangular cross-section.

20. (Currently Amended) The ICP processing apparatus as claimed in claim 22, ~~claim 16~~, wherein a distance that height of the metal strip extends away from an outer surface of the antenna gradually decreases from a center portion of the antenna to an end~~[[edge]]~~ portion of the antenna.

21. (Previously Presented) The inductively coupled antenna, as claimed in claim 1, wherein the coil further comprises:

a conductive metal tube having a cooling path; and

a conductive metal strip that is electrically and thermally connected to the conductive metal tube and is coextensive with the conductive metal tube.

22. (Previously Presented) The ICP processing apparatus as claimed in claim 11, wherein the coil further comprises:

a conductive metal tube having a cooling path; and

a conductive metal strip that is electrically and thermally connected to the conductive metal tube and is coextensive with the conductive metal tube.

23. (New) The inductively coupled antenna as claimed in claim 1, wherein the outermost coil is connected in parallel to each of the plurality of inner turns.

24. (New) The inductively coupled antenna as claimed in claim 2, wherein the branch point of the outermost turn and the plurality of inner turns corresponds to a base point of a substantially U-shaped portion of the coil.

25. (New) The ICP processing apparatus as claimed in claim 11, wherein the outermost coil is connected in parallel to each of the plurality of inner turns.

26. (New) The ICP processing apparatus as claimed in claim 12, wherein the branch point of the outermost turn and the plurality of inner turns corresponds to a base point of a substantially U-shaped portion of the coil.